

thereby form an image, wherein; a contact angle of the second liquid with respect to plain paper is less than  $85^{\circ}$  and a contact angle of the second liquid with respect to region where the first liquid is provided on plain paper is  $60^{\circ}$  or more." The combination of Koyano, Yamashita and Takeda fails to teach or suggest this combination of features.

As the Office Action acknowledges on pages 3-4, Koyano does not disclose that the first liquid is color ink and the second liquid is black ink. To remedy this deficiency of Koyano, the Office Action asserts that Yamashita suggests use of the first liquid being color ink and the second liquid being black ink in paragraph [0054] of the specification.

The description in paragraph [0054] of Yamashita merely relates to the use of colors other than black, cyan, yellow and magenta, not the use of color ink and black ink as the first and second liquid, respectively.

Moreover, paragraphs [0053]-[0054] of Yamashita teaches that two or more kinds of pigments may be used as a mixture. A mixture is not the same as the claimed invention, where the first liquid is color ink and the second liquid is black ink and the first liquid is provided on a recording medium while the second liquid is in contact with a region where the first liquid has been provided. The region where the first liquid is provided and the region where the second liquid is provided overlap each other and/or are adjacent to each other in the direction of the plane of the recording medium.

Takeda also fails to teach or suggest at least the claim elements "the first liquid is color ink and the second liquid is black ink" and "a contact angle of the second liquid with respect to plain paper is less than  $85^{\circ}$  and a contact angle of the second liquid with respect to region where the first liquid is provided on plain paper is  $60^{\circ}$  or more." Paragraph [0135], relied on by the Office Action for the "first liquid is ink and the second liquid is black ink" feature, makes no mention of specific colors, let alone the specific colors in the claimed context.

Additionally, paragraphs [0006] and [0135] of Takeda disclose a pigment dispersed photosensitive composition that is useful for forming a color filter of a liquid crystal display unit. Clearly the claimed forming of an image on plain paper is different than Takeda's forming of a color filter for a liquid crystal display unit. Takeda discloses forming a color image by coating a substrate and drying it, etc. Takeda does not teach or suggest forming an image on plain paper.

Therefore, claim 1 is patentable over the combination of Koyano, Yamashita and Takeda under §103.

Claims 2-7 and 9-16 depend, directly or indirectly, from claim 1 and, thus, inherit the patentable subject matter of claim 1, while further defining and/or adding additional elements. Therefore, claims 2-7 and 9-16 are also patentable over the combination of Koyano, Yamashita and Takeda under §103.

Claim 17 recites, "An ink jet recording device comprising: a recording head provided with two or more nozzles respectively jetting two or more liquids respectively onto a surface of a recording medium, the device using a first liquid and a second liquid as the two or more liquids, wherein the first liquid is color ink and the second liquid is black ink, and wherein: an image is formed at least by jetting the first liquid from the recording head onto the recording medium and jetting the second liquid from the recording head so as to be in contact with a region where the first liquid has been provided on the recording medium; a contact angle of the second liquid with respect to plain paper is less than 85°; and a contact angle of the second liquid with respect to the region where the first liquid is provided on the plain paper is 60° or more."

For the same reasons given above with respect to claim 1, claim 17 is patentable over the combination of Koyano, Yamashita and Takeda under §103.

Claims 18-20 depend, directly or indirectly, from claim 17 and, thus, inherit the patentable subject matter of claim 17, while further defining and/or adding additional elements. Therefore, claims 18-20 are also patentable over the combination of Koyano and Yamashita under §103. Consequently, Applicants respectfully request passage of the pending claims to allowance.

**B. Claims 4 and 5 Patentable over Koyano/Yamashita/Takao**

Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Koyano and Yamashita and further in view of U.S. Patent Publication No. 2002/0077383 to Takao (Takao).

Claims 4 and 5 depend from claim 1 and are patentable over the combination of Koyano and Yamashita for the same reasons given above. That is, Takao fails to cure the deficiencies of Koyano and Yamashita. The Takao reference does not bridge the gap identified above. Takao fails to teach or suggest the claimed invention, where the first liquid is color ink and the second liquid is black ink and the first liquid is provided on a recording medium while the second liquid is in contact with a region where the first liquid has been provided. Therefore, claims 4 and 5 are patentable over the combination of Koyano, Yamashita, and Takao.

**C. Claims 11 and 20 Patentable over Koyano/Yamashita/Koga**

Claims 11 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Koyano, Yamashita and Takeda and further in view of U.S. Patent Publication No. 2003/0234846 to Koga et al. (Koga).

Claims 11 depends from claim 1 and claim 20 depends from claim 17. Each of claims 11 and 20 are patentable over the combination of Koyano, Yamashita and Takeda for the same reasons given above with respect to claims 1 and 17. That is, Koga fails to cure the deficiencies of Koyano, Yamashita and Takeda. In addition, the Koga reference does not

bridge the gap identified above. Koga fails to teach or suggest the claimed invention, where the first liquid is color ink and the second liquid is black ink and the first liquid is provided on a recording medium while the second liquid is in contact with a region where the first liquid has been provided. Therefore, claims 11 and 20 are patentable over the combination of Koyano, Yamashita, Takeda and Koga.

**D. Claim 13 Patentable over Koyano/Yamashita/Oshima**

Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over Koyano, Yamashita and Takeda and further in view of U.S. Patent Publication No. 2002/0058729 to Oshima (Oshima).

Claim 13 depends from claim 1 and is patentable over the combination of Koyano, Yamashita and Takeda for the same reasons given above. That is, Oshima fails to cure the deficiencies of Koyano, Yamashita and Takeda. The Oshima reference does not bridge the gap identified above. Oshima fails to teach or suggest the claimed invention, where the first liquid is color ink and the second liquid is black ink and the first liquid is provided on a recording medium while the second liquid is in contact with a region where the first liquid has been provided. Therefore, claim 13 is patentable over the combination of Koyano, Yamashita, and Oshima.

**E. Claim 16 Patentable over Koyano/Yamashita/Maze**

Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Koyano, Yamashita and Takeda and further in view of U.S. Patent Publication No. 2001/0008411 to Maze et al. (Maze).

Claim 16 depends from claim 1 and is patentable over the combination of Koyano, Yamashita and Takeda for the same reasons given above. That is, Maze fails to cure the deficiencies of Koyano, Yamashita and Takeda. In addition, the Maze reference does not bridge the gap identified above. Maze fails to teach or suggest the claimed invention, where

the first liquid is color ink and the second liquid is black ink and the first liquid is provided on a recording medium while the second liquid is in contact with a region where the first liquid has been provided. Therefore, claim 16 is patentable over the combination of Koyano, Yamashita, Takeda and Maze.

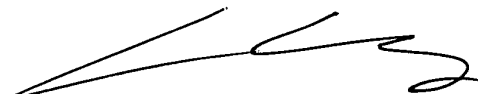
In view of the above, modifying the ink of Koyano with the disclosure of Yamashita would not lead one skilled in the art to the invention of amended claims 1 and 17, to say nothing of other cited references.

## II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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